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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,784	10/16/2000	Robert G. Lane	99-002-NSC/STK99002PUS	1556

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EXAMINER	
JONES, PRENELL P	

ART UNIT	PAPER NUMBER
2667	14

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/688,784	LANE ET AL.	
	Examiner	Art Unit	
	Prenell P Jones	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *15-25* is/are allowed.

6)☒ Claim(s) *1-8 and 11* is/are rejected.

7)☒ Claim(s) *9,10 and 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5, 10, 12, 13*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et al in view of Kleyman et al and Prince et al.

Regarding claims 1-6 and 11, Simon discloses (Abstract, col. 2, line 61 thru col. 4, line 67) signal transfer wherein the architecture includes using a virtual back plane associated with multiple physical networks that consist of back-planes, (col. 8, line 4-49)

subcomponents consisting of plurality of interface cards such as ATM/Gigabit Ethernet/ FDDI, wherein the interface cards contain routing table software. Simon is silent on a central processor controlling routing among multiple cards. In analogous art, Kleyman discloses (Abstract, Figs. 1-5, col. 2, line 1 thru col. 5, line 67) transmitting data in a communication system that provides scalable remote access to multiple users wherein the architecture includes switching/routing of data packets between a plurality of interconnected communication cards, wherein the cards consist of a plurality of ports, a virtual back plane that creates a dedicated virtual connection among the interconnected cards, an a processor controller controlling routing of data, and Prince discloses (Abstract, Fig. 2 & 3, col. 6, line 60 thru col. 9, line 37, col. 10, line 24 thru col. 13. line 40) transmitting cells across an ATM switch whereby the architecture includes a switch fabric that controls communication routing associated with virtual circuits, ATM switch is utilized as a back plane which accommodates multiple modules/cards (ATM, LAN, Token Ring, FDDI, Ethernet), (col. 7 thru col. 8) wherein the multiple modules/cards contain a plurality of port interfaces, wherein each port is capable of supporting a LAN segment, ATM switch. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement a central processor for controlling the routing in a virtual back plane system among cards as taught by the combined teachings of Kleyman and Prince with the teachings of Simon for the purpose further managing communicating/routing of data in a multiple user environment.

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et al in view of Kleyman et al and Prince et al as applied to claims 1-6 above, and further in view of Holloway et al.

Regarding claims 7 and 8, as indicated above, Simon discloses (Abstract, col. 2, line 61 thru col. 4, line 67) signal transfer wherein the architecture includes using a virtual back plane associated with multiple physical networks that consist of back-planes, (col. 8, line 4-49) subcomponents consisting of plurality of interface cards such as ATM/Gigabit Ethernet/ FDDI, wherein the interface cards contain routing table software, Kleyman discloses (Abstract, Figs. 1-5, col. 2, line 1 thru col. 5, line 67) transmitting data in a communication system that provides scalable remote access to multiple users wherein the architecture includes switching/routing of data packets between a plurality of interconnected communication cards, wherein the cards consist of a plurality of ports, a virtual back plane that creates a dedicated virtual connection among the interconnected cards, an a processor controller controlling routing of data, and Prince discloses (Abstract, Fig. 2 & 3, col. 6, line 60 thru col. 9, line 37, col. 10, line 24 thru col. 13. line 40) transmitting cells across an ATM switch whereby the architecture includes a switch fabric that controls communication routing associated with virtual circuits, ATM switch is utilized as a back plane which accommodates multiple modules/cards (ATM, LAN, Token Ring, FDDI, Ethernet), (col. 7 thru col. 8) wherein the multiple modules/cards contain a plurality of port interfaces, wherein each port is capable of supporting a LAN segment, ATM switch. Simon, Kleyman and Prince are silent on management/control

processor assigning addresses to cards/segments. In analogous art, Holloway discloses (Abstract, col. 2, line 50 thru 3, line 50, col. 4, line 43 thru col. 8, line 50) discloses a managed network wherein the architecture includes managed hubs (managed processor), whereby some hubs contain multiple back-planes along with associated LAN segments and their LAN group addresses, interconnected computer devices, (col. 5, line 47 thru col. 6, line 55, col. 12, line 5-40) plurality of communication modules/cards with associated module number, plurality of modules have plurality of ports and associated port numbers. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention to be motivated to implement a management processor that assigns unique addresses to back plane based on module number and segment address with the combined teachings of Simon, Kleyman and Prince for the purpose of providing security within a multi-user communication system associated with the accessing/routing of information.

Allowable Subject Matter

5. Claims 15-25 allowed over prior art.

6. Claims 9, 10, 12, 13 and 14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: Although the prior art discloses an architecture where the exist a virtual back plane associated with a plurality of multiple communication/network cards (which also

have associated physical back planes) with a plurality of ports, a signal transfer wherein the architecture includes using a virtual back plane associated with multiple physical networks that consist of back-planes, subcomponents consisting of plurality of interface cards such as ATM/Gigabit Ethernet/ FDDI/Token Ring/FDDI, wherein the interface cards contain routing table software, transmitting data in a communication system that provides scalable remote access to multiple users wherein the architecture includes switching/routing of data packets between a plurality of interconnected communication cards, wherein the cards consist of a plurality of ports, a virtual back plane that creates a dedicated virtual connection among the interconnected cards, an a processor controller controlling routing of data, transmitting cells across an ATM switch whereby the architecture includes a switch fabric that controls communication routing associated with virtual circuits, ATM switch is utilized as a back plane which accommodates multiple modules/cards a managed network wherein the architecture includes managed hubs (managed processor), whereby some hubs contain multiple back-planes along with associated LAN segments and their LAN group addresses, interconnected computer devices, plurality of communication modules/cards with associated module number, plurality of modules have plurality of ports and associated port numbers they fail to teach/suggest a management processor send to each card the segment number of the back plane holding the card, and automatically generate a routing table for each card, the routing table specifying at least one card to which information is forwarded on route to any other card and send the routing table to each card, management processor automatically discovers to which cards each card is connected, cards from a plurality of

multipoint routing paths between a requesting computer element and a plurality of responding elements, and determining a routing table for each card based on at least one segment to which the card is associated, each routing table specifying at least one next card to route information for every other destination card.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 703-305-0630. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

April 30, 2004

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 5/3/04